

CERTIFICATE OF ACHIEVEMENT

The Certificate of Achievement in Engineering Technology, Operations Emphasis is an 18-month program that provides students with class room and laboratory experiences in electricity, mechanical power, pneumatics, hydraulics and ferrous and non-ferrous material. The Operations emphasis focuses on those skills used in operational settings. Courses include Industrial Electricity, Mechanical Power Transmission and Fluid Power.

STUDENT LEARNING OUTCOMES - Graduates of this program will have the opportunity to:

- Demonstrate the knowledge and ability to follow guidelines for safe operation and maintenance of various mechanical, electrical, and fluid power systems.
- Show the skills to design and operate basic electrical, mechanical, and fluid power systems and to use computer-based programmable logic controller devices to monitor their operation and performance.
- Employ the skills and knowledge to apply various troubleshooting techniques for identification and correction of faults in electrical circuits and mechanical and high pressure fluid power systems.
- Prepare technical reports and communicate the results through effective oral communications.

GENERAL EDUCATION REQUIREMENTS (3 Credits):

	CR	SEMESTER
COMMUNICATIONS: COM 115, ENG 107	3	_____

SPECIAL PROGRAM REQUIREMENTS (27 Credits):

	CR	SEMESTER
AC 103B Introduction to HVAC Mechanical Theory and Application	5	_____
CONS 120 Printreading and Specifications	3	_____
MT 102B Fundamentals of Electricity	4	_____
MT 104B Industrial Electricity	4	_____
MT 106B Mechanical Power Transmission	4	_____
MT 108B Fluid Power (Pneumatics, Hydraulics, Instrumentation)	4	_____

Plus 3 credits from the following:

Any course with EGG, ET, MT prefix	3	_____
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Computation included in MT 102B

Human Relations included in MT 102B

NOTE: Courses with a B suffix (example - XYZ 123B) may be non-transferable for a NSHE baccalaureate degree.

ETOPER-CT

30
Total Credits

Students may elect to graduate using the degree requirements in effect at the time of matriculation, or when they declared or changed major or the current catalog. If a program is official after a student has matriculated, the student may choose the degree requirements of the new program. In no case may a student use a catalog which is more than six years old at the time of graduation.

**Guided Pathway
Certificate of Achievement
Engineering Technology – Operations Emphasis
Total Credits – 30 credits**

First Semester	Requirement	Credit Hours	Term
Communications	COM 115, ENG 107	3	
Fundamentals of Electricity	MT 102B	4	
Mechanical Power Transmission	MT 106B	4	
	TOTAL	11	
Second Semester	Requirement	Credit Hours	Term
Introduction to HVAC Mechanical Theory and Application	AC 103B	5	
Print reading and Specifications	CONS 120	3	
Fluid Power (Pneumatics, Hydraulics, Instrumentation)	MT 108B	4	
	TOTAL	12	
Third Semester	Requirement	Credit Hours	Term
Industrial Electricity	MT 104B	4	
Introduction to Computer Aided Drafting	CADD 100	3	
	TOTAL	7	
	CA TOTAL	30	

More detailed information can be found on the ET Web page at <http://www.csn.edu/et>